

Letter from Alexander Graham Bell to Alexander Melville Bell and Eliza Symonds Bell, May 24, 1875, with transcript

Type 84. "Salem, Mass., May 24th, 1875. (Dear Papa and Mama:

"I am so immersed in telegraphy and science that I find it impossible to write freely about anything else, but I feel that at the present time you can scarcely be inclined to listen to anything I have to say on such subjects.

"Since I gave up professional work and devoted myself exclusively to telegraphy, I have been steadily gaining health and strength, and am now in a fit state to encounter Mr. Gray or any one else. The patents that have been granted to me without opposition are,—

"1st. The principle of converting a vibratory motion into a permanent make or break of a local circuit.

"2d. The special form of 'vibratory circuit breaker.'

"3d. The autograph telegraph.

"The autograph arrangement is rapidly approaching completion. Already I can copy handwriting quite legibly , though not yet neatly. The rate of Transmission by means of my instrument will be exactly ten times more rapid than 'Bakewell's Autograph Telegraph,' in which the rate is 300 letters per minute. When 3000 letters per minute can be sent, my telegraph will be the most rapid as well as the cheapest .

"Every moment of my time is devoted to study of electricity and to experiments. The subject broadens. I think that the transmission of the human voice is much more nearly

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at hand than I had supposed. However, this is kept in the back-ground just now, as every effort is to be made to complete the autograph arrangement, so as to have it used on some line.) important

“The two patents for the transmission of musical notes are not decided yet. I can't understand why the Interference should not have been declared before this.) Here are some late discoveries:

1. The current from one of my instruments passed through an iron wire causes a musical note to issue from the wire. 2. The same effect is produced by passing the current through a piece of carbon. 3. Ditto when it is forced through the plumbago of an ordinary lead pencil!!! No similar effects noted yet with copper, brass, or mercury.

“A still more curious phenomenon is the following:—

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“Two thin strips of brass (A and B) are connected with the wires coming from my Transmitting Instrument, T, and from the battery. On holding A to my ear I hear nothing, but the moment that I touch B with my finger a musical tone is heard to proceed from A!!

N (“Truly, the more I study electricity and magnetism the more I feel the truth of Hamlet!s saying. ‘There are more things,’ etc.

“I fear that this telegraphic business may force me to remain the greater portion of the summer here, but I cannot tell yet, so many details have to be worked out. My inexperience in such matters is a great drawback. However, Morse conquered his electrical difficulties although he was only a painter, and I don't intend to give in either till all is completed.)

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"With dear love. "Yr affectionate son, "Aleck."